

pdgLive

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The screenshot shows the pdgLive website interface. At the top is the PDG logo with the text 'particle data group' and 'Live' in red. Below the logo is a navigation bar with links: Home, pdgLive, Summary Tables, Reviews, Tables, Plots, and Particle Listings. A message states: 'New pdgLive (beta version) - please send feedback to pdg-feedback-pdglive@pdg.lbl.gov'. The main content area is titled '2012 Review of Particle Physics' and includes a citation: 'Please use this CITATION: J. Beringer *et al.* (Particle Data Group), Phys. Rev. D86, 010001 (2012)'. Below this is a table of contents with three columns: Gauge & Higgs Bosons, Leptons, and Quarks. The table lists various particle reviews and topics, including gluon, graviton, W, Z, Higgs Bosons, Heavy Bosons, Axions, Leptons (e, μ, τ, Heavy Charged Lepton, Neutrino Properties, Number of Neutrino Types, Double β-Decay, Neutrino Mixing, Heavy Neutral Leptons), Quarks (Light quarks (u, d, s), c, b, t, b', t', Free quark), Mesons (Reviews on Mesons, Light Unflavored, Further States, Strange, Charmed, Charmed, Strange, Bottom, Bottom, Strange, Bottom, Charmed, c c-bar, b b-bar, Non q q-bar Candidates), Baryons (Reviews on Baryons, N Baryons, Δ Baryons, Exotic Baryons, Λ Baryons, Σ Baryons, Ξ Baryons, Ω Baryons, Charmed Baryons, Doubly-Charmed, Bottom Baryons), and Other Searches (Reviews on Other Searches, Magnetic Monopole, Supersymmetric Particles, Technicolor, Quark and Lepton Compositeness, Extra Dimensions, WIMPs).

- **Same look-and-feel as “old” pdgLive**
- **Many improvements**
- **Deployed as “beta version” for RPP 2012**
 - In parallel to old pdgLive
 - Received a few bug reports, but no major issues
 - Will become primary version of pdgLive, after fixing a number of known issues

- Print-like-quality display of TeX on the web (using MathJax)

Old pdgLive

Γ_6	$\bar{D}^*(2007)^0 \ell^+ \nu_\ell$
Γ_7	$\bar{D}^*(2007)^0 \tau^+ \nu_\tau$

New pdgLive (beta)

Γ_6	$B^+ \rightarrow \bar{D}^*(2007)^0 \ell^+ \nu_\ell$
Γ_7	$B^+ \rightarrow \bar{D}^*(2007)^0 \tau^+ \nu_\tau$

- New presentation of branching ratios using folding sections

INSPIRE search

Γ_4/Γ^{B^+}

$B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell$

$\Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell)/\Gamma_{total}$

“OUR EVALUATION” is an average using rescaled values of the data listed below. The average and rescaling were performed by the Heavy Flavor Averaging Group (HFAG) and are described at <http://www.slac.stanford.edu/xorg/hfag/>. The averaging/rescaling procedure takes into account correlations between the measurements. $\ell = e$ or μ , not sum over e and μ modes.

Value ()	Document ID	TECN	Comment
0.0226 ± 0.0011	OUR EVALUATION		
$0.0229 \pm 0.0008 \pm 0.0009$	AUBERT ¹	2010	BABR $e^+ e^- \rightarrow \Upsilon(4S)$
$0.0234 \pm 0.0003 \pm 0.0013$	AUBERT	2009A	BABR $e^+ e^- \rightarrow \Upsilon(4S)$
$0.0221 \pm 0.0013 \pm 0.0019$	BARTELT ²	1999	CLE2 $e^+ e^- \rightarrow \Upsilon(4S)$
$0.016 \pm 0.006 \pm 0.003$	FULTON ³	1991	CLEO $e^+ e^- \rightarrow \Upsilon(4S)$
*** We do not use the following data for averages, fits, limits, etc ***			
$0.0233 \pm 0.0009 \pm 0.0009$	AUBERT ¹	2008Q	BABR Repl. by AUBERT 9A
$0.0194 \pm 0.0015 \pm 0.0034$	ATHANAS ⁴	1997	CLE2 Repl. by BARTELT 99

¹ Uses a fully reconstructed B meson as a tag on the recoil side.

² Assumes equal production of B^+ and B^0 at the $\Upsilon(4S)$.

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Old pdgLive

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Γ_7	$\bar{D}^*(2007)^0 \tau^+ \nu_\tau$

New pdgLive (beta)

Γ_6	$B^+ \rightarrow \bar{D}^*(2007)^0 \ell^+ \nu_\ell$
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- New presentation of branching ratios using folding sections

INSPIRE search

$B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell$

$\Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell) / \Gamma_{total}$	Γ_4 / Γ_{B^+}
$\Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell) / \Gamma(B^+ \rightarrow D \ell^+ \nu_\ell \text{ anything})$	Γ_4 / Γ_3
$\Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell) / \Gamma(B^+ \rightarrow \ell^+ \nu_\ell \text{ anything})$	Γ_4 / Γ_1

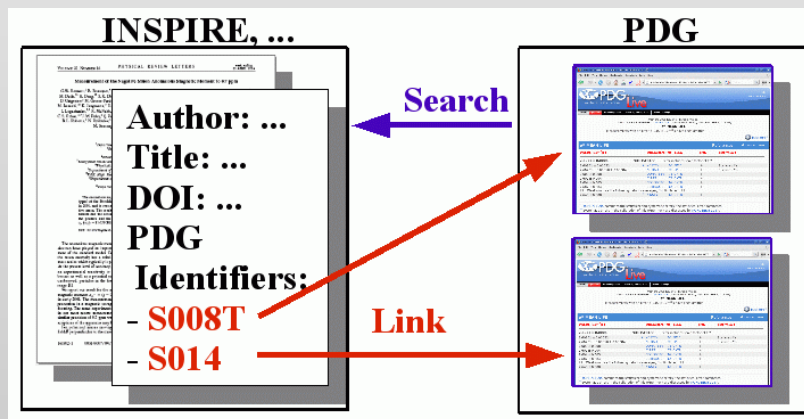
Value ()	Document ID	TECN	Comment
0.255 ± 0.013	OUR AVERAGE		
$0.255 \pm 0.009 \pm 0.009$	AUBERT ¹	2010	BABR $e^+ e^- \rightarrow \Upsilon(4S)$
*** We do not use the following data for averages, fits, limits, etc ***			
¹ Uses a fully reconstructed B meson on the recoil side.			

References

Document Id	Journal Name
AUBERT 2010	PRL 104 011802

$\Gamma(B^+ \rightarrow \bar{D}^0 \tau^+ \nu_\tau) / \Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell)$ Γ_5 / Γ_4

- **Wish list:**
 - From INSPIRE: ***“What data does PDG have about this?”***
 - From PDG: ***“What are the latest papers on this topic?”***
- **Permanent reference to PDG data items: PDG Identifiers**
 - Essentially PDG nodes (e.g. “Q007TP”)
 - Supported by pdgLive: e.g. <http://pdglive.lbl.gov/view/Q007TP>
 - Authoritative list available from pdg.lbl.gov (under “Downloads”)



- **Used for cross-linking to/from INSPIRE**
 - Interest from Elsevier to do something similar in ScienceDirect



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Measurement of $|V_{cb}|$ and the Form-Factor Slope in anti-B \rightarrow D l- anti- ν Decays in Events Tagged by a Fully Reconstructed B Meson.

BABAR Collaboration (Bernard Aubert *et al.*) [Show all 493 authors.](#)

Apr 2009
8 pp.

Phys.Rev.Lett. 104 (2010) 011802
 DOI: [10.1103/PhysRevLett.104.011802](https://doi.org/10.1103/PhysRevLett.104.011802)
 BABAR-PUB-09-009, SLAC-PUB-13580
 e-Print: [arXiv:0904.4063](https://arxiv.org/abs/0904.4063) [hep-ex] [PDF](#)
 Experiment: [SLAC-PEP2-BABAR](#)


Abstract: We present a measurement of the Cabibbo-Kobayashi-Maskawa matrix element $|V_{cb}|$ and the form-factor slope ρ^2 in $B\bar{B} \rightarrow D l^- \bar{\nu}$ decays based on 460 million $B\bar{B}$ events recorded at the Upsilon(4S) resonance with the BaBar detector. $B\bar{B} \rightarrow D l^- \bar{\nu}$ decays are selected in events in which a hadronic decay of the second B meson is fully reconstructed. We measure the differential decay rate and determine $G(1) |V_{cb}| = (43.0 \pm 1.9 \pm 1.4) \times 10^{-3}$ and $\rho^2 = 1.20 \pm 0.09 \pm 0.04$, where $G(1)$ is the hadronic form factor at the point of zero recoil. We also determine the exclusive branching fractions and find $BF(B^+ \rightarrow D^0 l^+ \bar{\nu}) = (2.31 \pm 0.08 \pm 0.09)\%$ and $BF(B^0 \rightarrow D^+ l^- \bar{\nu}) = (2.23 \pm 0.11 \pm 0.11)\%$.

➔

PDG: [B+ --> Dbar0 lepton+ nu lepton](#) | [B+ --> lepton+ nu lepton anything](#) | [B0 --> D- lepton+ nu lepton](#) | [B0 --> lepton+ nu lepton anything](#) | [B --> lepton+ nu lepton anything](#) | [B --> Dbar lepton nu lepton](#) | [ABS\(V \(cb\)\) * G\(1\) \(from B --> D- lepton+ nu\)](#) [Less](#)

Note: 8 pages, 2 postscript figures, submitted to Physical Review Letters

Keyword(s): INSPIRE: [electron positron: annihilation](#) | [B: pair production](#) | [form factor: slope](#) | [form factor:](#)



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$B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell$
→ INSPIRE search

$\Gamma(B^+ \rightarrow \bar{D}^0 \ell^+ \nu_\ell) / \Gamma_{total}$
 $\Gamma_4 / \Gamma^{B^\pm}$

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- **Several new features planned**
 - Searching and index
 - Integrate reviews from Reviews section
 - Download data in XML format
 - Tool to determine PDG Identifiers for external web applications
- **Further ideas for discussion**
 - Option to display entries published previously that are no longer included in current version of RPP?
 - User-contributed entries (previous discussion)?
 - ...?